

STATE WATER RESOURCES CONTROL BOARD  
DIVISION OF WATER RIGHTS  
P.O. BOX 2000  
SACRAMENTO, CA 95812-2000

**INITIAL STUDY/  
MITIGATED NEGATIVE DECLARATION**

**I. BACKGROUND**

PROJECT TITLE: Berglund Family Vineyards  
Petitions for Change and Extension of Time

PERMIT: 17941 (Application 25765)

PETITIONER: Berglund Family Vineyards  
Attn: William Berglund  
PO Box 2089  
Napa, CA 94558

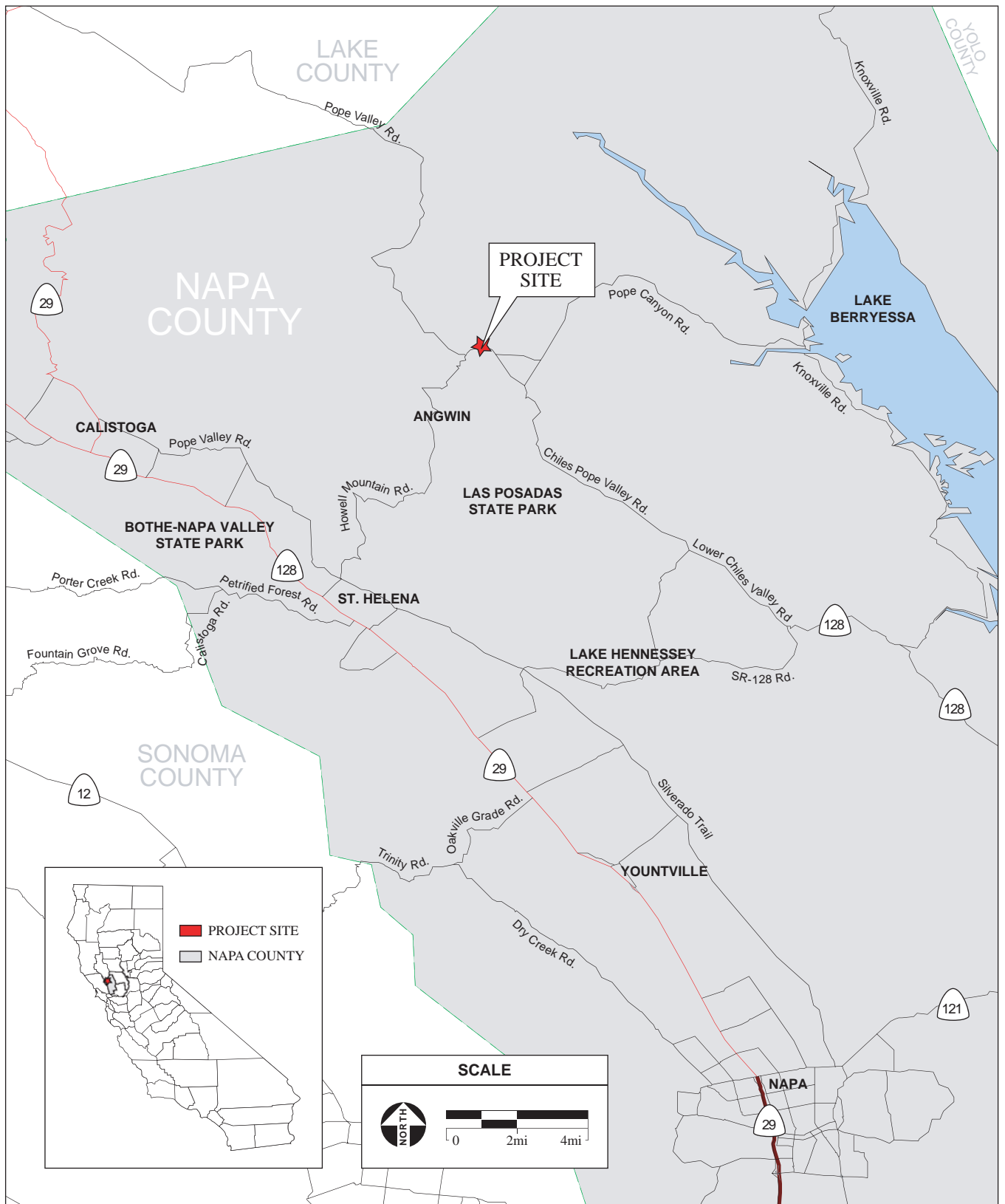
PETITIONER'S CONTACT PERSON: Napa Valley Vineyard Engineering, Inc.  
Attn: Diane Willson  
176 Main Street, Suite B  
St. Helena, CA 94574

GENERAL PLAN DESIGNATION: Agricultural Resource

ZONING: Agricultural Watershed

**Introduction**

The approximately 260-acre Berglund Family Vineyards project site is located about four miles northeast of Angwin and about a quarter mile northeast of the town of Pope Valley in Napa County, California (**Figure 1**). The project site is within Section 21, Township 9N, Range 5W of the "Aetna Springs, California" and "St. Helena, California" U.S. Geological Survey (USGS) 7.5 minute topographic quadrangle maps (**Figure 2**). The proposed project includes a Petition for Extension of Time, a Petition for Change to add a point of diversion/rediversion at Lower Reservoir and redistribution of storage, and a reduction in place of use. The Petitioner proposes to use the diverted and stored water under Permit 17941 for irrigation, heat control, and frost protection on approximately 68 acres of existing vineyard within the 80-acre place of use. No additional vineyard would be developed with the proposed project. Project features are shown in **Figure 3**.

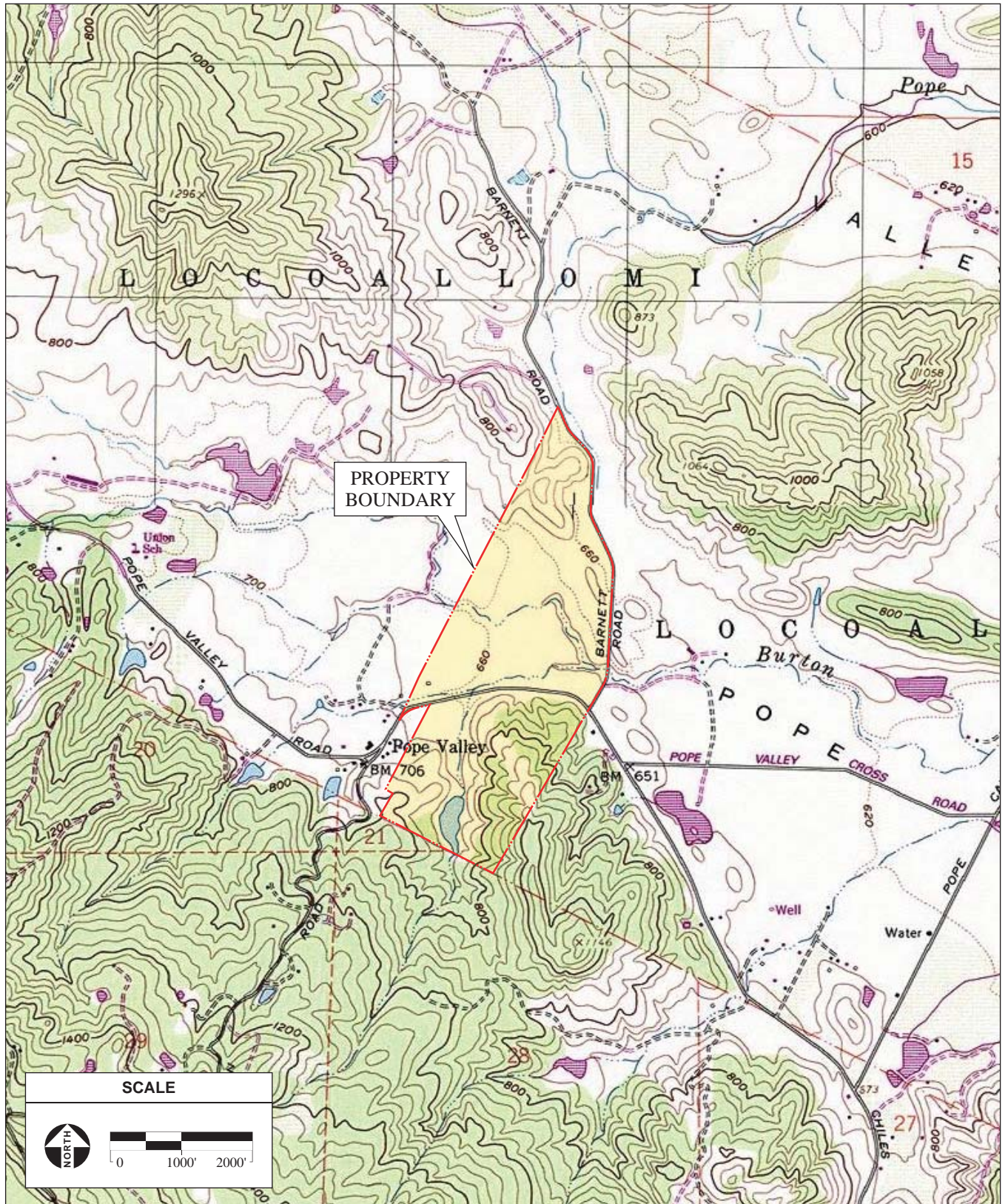


SOURCE: ESRI Data, 2001; AES, 2007.

Berglund Family Vineyards Water Right Petitions / 204509 ■

**Figure 1**  
Regional Location



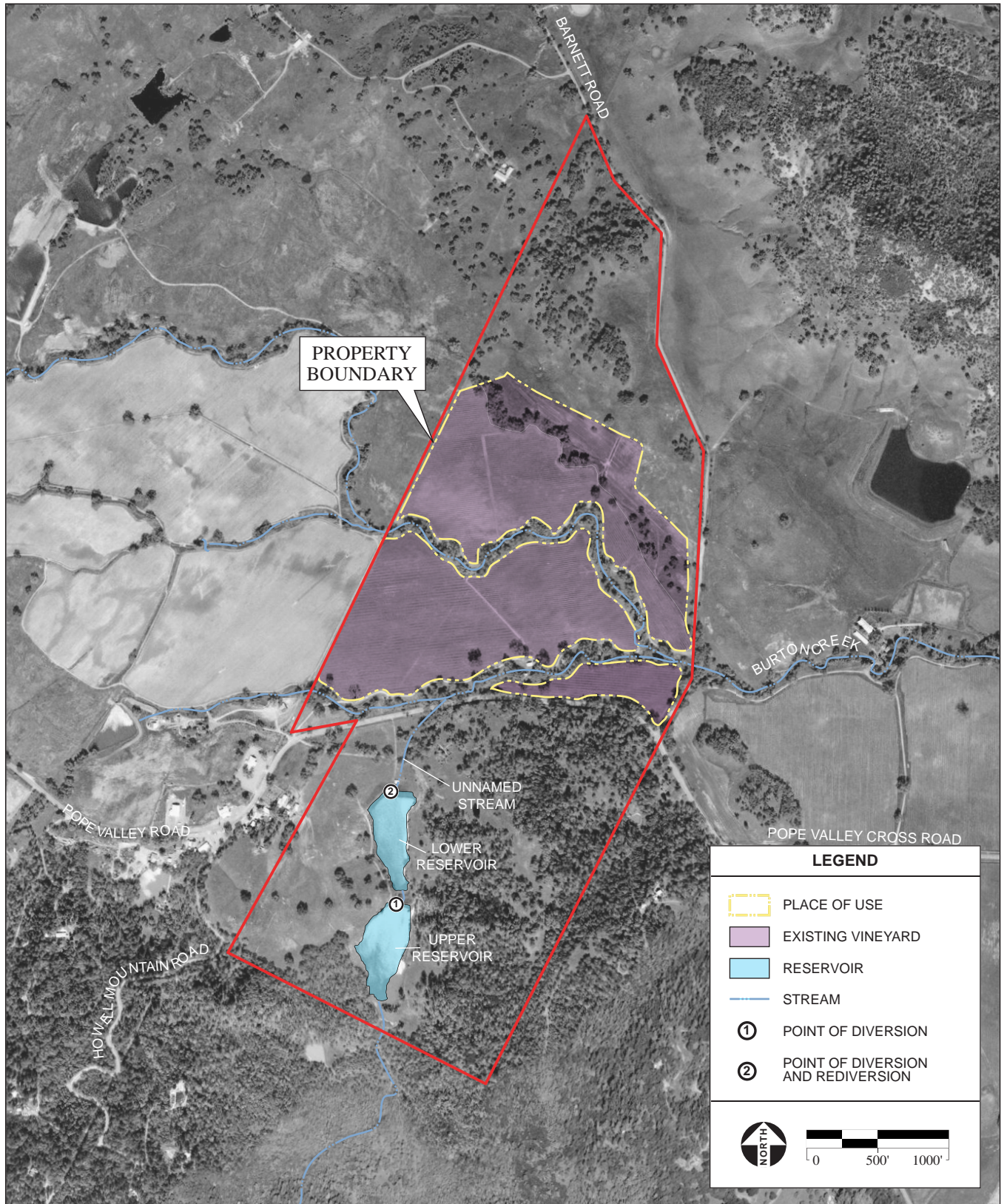


SOURCE: "Aetna Springs, CA" & "St. Helena, CA" USGS 7.5 Minutes Quadrangles, Unsectioned Areas of "Locoalli & Pope Valley" T9N, R5W, Mount Diablo Base and Meridian ; AES, 2007

Berglund Family Vineyards Water Right Petitions / 204509 ■

**Figure 2**  
Site and Vicinity





SOURCE: AirPhoto USA Aerial Photograph, 4/1/2004; AES, 2007

Berglund Family Vineyards Water Right Petitions / 204509 ■

**Figure 3**  
Project Features

## Project Background

Water is stored on the property pursuant to two water rights. Permit 17941 (Application 25765) authorizes storage of 100 af of water per annum and replenishment of 100 af from an Unnamed Stream and Burton Creek for irrigation, frost protection and heat control of 100 acres from November 1 to May 15. The time to complete construction work under Permit 17941 ended on December 31, 1990 and the time to complete full beneficial use of water ended on December 31, 1992. Pursuant to License 5806 (Application 15281), the Petitioner diverts and stores 42 af of water per annum in Upper Reservoir from October 1 to May 1 from an Unnamed Stream tributary to Burton Creek for recreation and domestic (stockwatering) uses. No changes to the purposes of use authorized under License 5806 are proposed. The permit currently limits the total combined diversion and storage under License 5806 and Permit 17941 to 200 af.

The application associated with Permit 17941 (Application 25765) was filed and noticed by the Division on October 26, 1979 to enlarge the 42 af capacity reservoir utilized pursuant to License 5806 to a capacity of 100 af. A California Environmental Quality Act (CEQA) Initial Study/Negative Declaration for the project was approved on July 16, 1980 and Permit 17941 was issued on July 30, 1980. Two subsequent Petitions for Extension of Time were filed by the Petitioner and noticed and approved by the Division to provide additional time for the Petitioner to enlarge the capacity of Upper Reservoir and to put the water to beneficial use. An Order approving a new development schedule and amending the permit was issued on June 4, 1985, and a second Order was issued on October 25, 1988. With the second Order, the period to develop maximum water use was extended to December 31, 1992.

The originally approved 100 af reservoir was not constructed due to requirements by the Department of Safety of Dams following the 1989 Loma Prieta earthquake. Instead, the Petitioner constructed a second 49 af capacity reservoir (Lower Reservoir) between 1990 and 1991 on the same Unnamed Stream on which Upper Reservoir is located, and enlarged the capacity of Upper Reservoir to 49 af. The two 49 af capacity reservoirs currently exist in tandem, instead of an enlarged Upper Reservoir with a 100 af capacity, as originally proposed. The two smaller reservoirs are both located within the general footprint of the originally approved 100 af reservoir; they are constructed within about 100 feet of each other and extend approximately eight acres beyond the footprint of the originally proposed 100 af capacity reservoir, but are within the same habitat types studied for the reservoir. The diversion structure on Burton Creek has not been constructed, and the Petitioner has requested that it be dropped from the permit. Thus, the combined annual diversion to storage limit would be reduced from the currently authorized 200 af under License 5806 and Permit 17941 to 140 af (with 42 af of the 140 af total diverted to storage under License 5806 strictly for recreation and domestic (stockwatering) uses).

The Petitioner filed a Request for License of Permit 17941 (Application 25765) on April 27, 1992 and the Division conducted a field survey on July 2, 1992. A 1995 pre-license inspection for Permit 17941 confirmed the existence of two onstream reservoirs (Upper and Lower Reservoirs) with capacities of 49 af each (98 af total). The inspection determined that 1995 was the year of maximum water use, with 92 af used to irrigate approximately 35 acres of Sudan grass. The Request for License issued by the Division, signed by the Petitioner and returned to the Division on June 20, 1996 included a petition to add a point of diversion/rediversion and redistribution of storage (required since Lower Reservoir was constructed in lieu of enlarging Upper Reservoir to 100 af) and an extension of time to include the 1995-year of maximum water use. The petitions were noticed on December 11, 1996 and are on file with the Division.

## Project Description

The proposed project includes a Petition for Extension of Time to extend Permit 17941 to cover the year of maximum water use, which was 92 acre-feet (af) in 1995. The time to complete full beneficial use of water under Permit 17941 ended on December 31, 1992. Additionally, the project includes a Petition for Change to add a point of diversion/rediversion at Lower Reservoir and redistribution of storage (as Lower Reservoir was constructed instead of enlarging Upper Reservoir to 100 af under the permit), and a reduction in place of use from 100 acres to 80 acres.

With the petitions, a total of 98 af of water would be collected from November 1 to May 15 from an Unnamed Stream for storage in the existing Upper and Lower Reservoirs (each with 49 af capacities); preliminary reservoir topography was field verified during State Water Resources Control Board (State Water Board), Division of Water Rights (Division) inspection in 1995. The maximum annual withdrawal would not exceed 92 af from the two reservoirs under the permit.

The Petitioner proposes to use the diverted and stored water under Permit 17941 for irrigation, heat control, and frost protection on approximately 68 acres of existing vineyard within the 80-acre place of use (the 80 acres includes vineyard avenues). Approximately 35 acres of Sudan grass existed at the time the petitions were filed. The Sudan grass has since been converted to vineyard and an additional approximately 33 acres of vineyard were planted after 1997. No additional vineyard would be developed with the proposed project. Project features are shown in **Figure 3**. Water supply lines to the vineyard are buried and drip irrigation lines are installed above ground. The place of use is described in **Table 1**.

TABLE 1 - EXISTING PLACE OF USE<sup>1</sup>

Use Within	Section	Township	Range	B & M	Approximate Acreage
SE¼ of NW¼	21	9N	5W	MD	26
NE¼ of NW¼	21	9N	5W	MD	7
NW¼ of SE¼	21	9N	5W	MD	6
SW¼ of NE¼	21	9N	5W	MD	29
NW¼ of NE¼	21	9N	5W	MD	9
NE¼ of SW¼	21	9N	5W	MD	6
Total					80

The locations of the points of diversion for the project are as follows:

(1) Point of Diversion to Storage in Upper Reservoir and Rediversion: Water diverted from an Unnamed Stream tributary to Burton Creek thence Maxwell Creek thence Pope Creek. Being within the SE ¼ of the SW ¼ of projected Section 21, Township 9N, Range 5W, MDB&M.

(2) Point of Diversion to Storage in Lower Reservoir and Rediversion: Water diverted from an Unnamed Stream tributary to Burton Creek thence Maxwell Creek thence Pope Creek. Being within the NE ¼ of the SW ¼ of projected Section 21, Township 9N, Range 5W, MDB&M.

The Division received a protest from the California Sportfishing Protection Alliance on January 28, 1997. The protest was not accepted, as the public comment period had closed and good cause for submitting a late protest was not shown. A 1998 Petition for Change proposed to increase the combined place of use to 134 net acres under the permit, which included 68 acres of existing vineyard and 66 acres of proposed vineyard. The petition was noticed on March 16, 2001. The petition to increase the place of use to 134 acres was cancelled on January 12, 2005; a previous application (Application 29736) for proposed additional reservoirs was also cancelled on January 12, 2005. In a November 8, 2006 email to the Division, the Petitioner stated that no additional vineyard would be planted within the place of use, that the existing 68-acre vineyard planted pursuant to Permit 17941 is within approximately 80 gross acres disturbed (includes vineyard avenues) within the permitted place of use, and that water use would not exceed 92 af per year. There are no proposed changes to License 5806.

The CEQA baseline for the project is set at June 20, 1996, which was the date of the petitions to add a point of diversion and rediversion, redistribution of storage and extension of time on Permit 17941. At that time, 92 af of water was used to irrigate approximately 35 acres of Sudan grass. The Progress Report filed by the Petitioner in 1992 (the last year to develop maximum water use), did not indicate the quantity of water used in 1992, but did indicate that water was used from April through September. A 1995 Report of Inspection found that 92 af was used in the year of maximum water use (1995). The two 49 af capacity reservoirs and associated pipelines also existed and are part of the CEQA baseline. The reservoirs were built within the footprint and vicinity of the area evaluated in the CEQA document for the permit prior to permit expiration in 1992.

### **Environmental Setting**

The project site is located in Pope Valley, in northern Napa County, approximately three and a half miles northeast of Angwin. Napa County is part of the hilly to steep mountains of the California Coast Range. The County is characterized by a number of northwesterly parallel mountain ridges and intervening valleys of varying widths<sup>2</sup>. Pope Valley Road runs through the project site, dividing the property into two sections. The area north of Pope Valley Road is the largest portion of the property and is used for cattle grazing and vineyard. The area south of Pope Valley Road is also utilized for cattle grazing and vineyard, and contains two reservoirs and forested vegetative cover. Elevations range from 634 to 1,000 feet above sea level, with the highest elevations occurring on the northern and southern portions of the property. The climate of the region is Mediterranean in character, with mild, rainy winter weather from November through April. Data from a National Weather Service weather station in Angwin reports that average precipitation is approximately 40 inches per year and that average temperatures range from the mid 40s to high 50s November through May, and from the 60s to low 70s June through October<sup>3</sup>.

The project site is primarily non-native grassland and forested hillsides. Habitat types occurring within the property include riparian/swales, blue oak woodland, mixed evergreen forest and annual grassland. The Berglund property has been extensively grazed and/or cultivated since the early 1860's, impairing the natural regeneration process of native vegetation and creating a high level of on site disturbance. No serpentine hills, outcrops, or soils exist on the property, and all drainages, including Burton Creek, are seasonal<sup>4</sup>.

## Responsible and Trustee Agencies

The State Water Board is the lead agency under CEQA with the primary authority for project approval. In addition, the following responsible and trustee agencies may have jurisdiction over some or all of the proposed project:

- U.S. Fish and Wildlife Service (USFWS) – Federal Endangered Species Act (FESA) Compliance;
- U. S. Army Corps of Engineers (USACE) – Section 404 Clean Water Act (CWA);
- California Department of Fish and Game (DFG) – California Endangered Species Act (CESA) Compliance; and
- North Coast Regional Water Quality Control Board – Section 401 Water Quality Certification.

## II. ENVIRONMENTAL IMPACTS

The environmental factors checked below could be potentially affected by this project. See the checklists on the following pages for more details.

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Geology and Soils                      | <input type="checkbox"/> Land Use and Planning           | <input type="checkbox"/> Utilities and Service Systems                 |
| <input checked="" type="checkbox"/> Air Quality                 | <input type="checkbox"/> Mineral Resources               | <input type="checkbox"/> Aesthetics                                    |
| <input checked="" type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Hazards and Hazardous Materials | <input checked="" type="checkbox"/> Cultural Resources                 |
| <input checked="" type="checkbox"/> Biological Resources        | <input type="checkbox"/> Population and Housing          | <input type="checkbox"/> Recreation                                    |
| <input type="checkbox"/> Agriculture Resources                  | <input type="checkbox"/> Transportation and Circulation  | <input checked="" type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Noise                                  | <input type="checkbox"/> Public Services                 |  |

### 1. Geology and Soils. Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i) Rupture of a known earthquake fault, as delineated in the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines & Geology Special Publication 42.
- ii) Strong seismic ground shaking?
- iii) Seismic-related ground failure, including liquefaction?
- iv) Landslides?
- b) Result in substantial soil erosion or the loss of topsoil?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternate wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Soil on the project site includes Pleasanton Loam, two to five percent slopes. Runoff on this soil is slow and the hazard of erosion is slight. Millsholm Loam, 15 to 30 percent slopes, is found on the project site; with rapid runoff and the moderate hazard of erosion. Sobrante Loam, 30 to 50 percent slopes is found in some areas; runoff on this soil is rapid and with moderate to high hazard of erosion. The project site also contains Bressa-Dibble complex, with slopes that range from five to 50 percent. Runoff on this soil ranges from medium to rapid, and the hazard of erosion is slight to severe<sup>5</sup>.

Suspected faults in Napa County roughly parallel the northwest-southwest course of the San Andreas Fault, which, at its closest point, is about 30 miles southwest of the City of Napa. Three main active faults have been identified within Napa County. From east to west they are the Cordelia and Green Valley faults (approximately 39 miles southeast of the project site) and the West Napa fault (approximately 25 miles south of the project site). The Hunting Creek Fault, approximately 17 miles northeast of the project site, is a possible northward extension of the Green Valley Fault<sup>6</sup>. The Hunting Creek Fault is identified by the Alquist-Priolo Earthquake Fault Zone Map. The project site is not located in a fault-rupture hazard zone<sup>7</sup>.

The primary seismic hazards in the project area are considered to be ground shaking and ground failure. Ground shaking occurs as energy, which is released as the earth's crust moves at the earthquake focus, and is transmitted as elastic waves up through the bedrock to become a series of complex waves or oscillations in the ground surface. Such ground shaking is one of the main causes of earthquake damage. Based on fault length it is estimated that the three main faults involved are capable of producing earthquakes with a Richter Magnitude of up to 6.75. Such an earthquake, which is considered a moderate-sized event, is capable of producing a substantial amount of damage, even to wood framed structures<sup>8</sup>. Ground failure occurs as the result of ground instability and takes on many forms, including landslides, ground cracking, subsidence, and liquefaction. Landslides are considered to be the most important seismic hazard within Napa County, as many areas within the County are susceptible. The project site is located within an area of Napa County of negligible to moderate slide risk<sup>9</sup>. Portions of the project site are located in an area mapped by Napa County as being prone to liquefaction<sup>10</sup>.

#### Questions A-D

The proposed project would not expose people or structures to substantial adverse effects from seismic risks such as rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (e.g., liquefaction), or landslides. Potential impacts are considered less than significant.

The proposed project involved earthmoving activities on slopes less than five percent during the development of the existing vineyard. No additional earthmoving activities would take place; the proposed project would therefore not result in a substantial loss of topsoil or soil erosion or result in impacts related to geologic unit or soil instability. Impacts are considered less than significant.

#### Question E

No septic tanks or wastewater disposal systems are proposed as part of the project. No impacts would occur.

#### Findings

The proposed project would not result in significant impacts to geology and soils.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>2. Air Quality.</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project is located within a mountainous region of the Coast Ranges within the San Francisco Bay Area Air Basin, falling under the jurisdiction of the San Francisco Bay Area Air Quality Management District. The San Francisco Bay Area Air Basin is generally affected by regionally high pollution emissions.

Air quality in the area is a function of the criteria air pollutants emitted locally, the existing regional ambient air quality, and the meteorological and topographic factors that influence the intrusion of pollutants into the area from sources outside the immediate vicinity.

#### Questions A and B

Air quality impacts associated with the proposed project would be minor and are limited to those resulting from operation and maintenance of the existing vineyard. Impacts are considered less than significant.

#### Question C

Continued compliance with requirements from the Agricultural Commissioner's Office for the use of soil sterilizers, pesticides, herbicides and other regulated chemicals would reduce potential impacts to a less than significant level. No construction activities are proposed for the project. Normal vineyard operations may result in minimal impacts to air quality. To ensure the

protection of air quality the following permit term, substantially as follows, shall be included in any water right license or order for Permit 17941 (Application 25765):

- *Permittee shall be responsible for complying with all applicable regulations from the Napa County Agricultural Commissioner's Office for the use of soil stabilizers, pesticides, herbicides, and other regulated chemicals on the place of use.*

#### Question D

The proposed project would not result in a cumulatively considerable increase in emissions. Impacts are considered less than significant.

#### Question E

The proposed project would not create objectionable odors that impact a substantial number of people.

#### Findings

The proposed project would not result in significant impacts to air quality with the inclusion of the above permit term.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>3. Hydrology and Water Quality. Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, or substantially increase the rate or volume of surface runoff in a manner that would:				
i) result in flooding on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) result in substantial erosion or siltation on or off site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Place housing or other structures which would impede or re-direct flood flows within a 100-yr. flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Expose people or structures to a significant risk of loss, injury, or death involving flooding:				



	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) as a result of the failure of a dam or levee?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) from inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Would the change in the water volume and/or the pattern of seasonal flows in the affected watercourse result in:				
i) a significant cumulative reduction in the water supply downstream of the diversion?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) a significant reduction in water supply, either on an annual or seasonal basis, to senior water right holders downstream of the diversion?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) a significant reduction in the available aquatic habitat or riparian habitat for native species of plants and animals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) a significant change in seasonal water temperatures due to changes in the patterns of water flow in the stream?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) a substantial increase or threat from invasive, non-native plants and wildlife?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Permit 17941 allows for storage of 100 af of water per year and replenishment of 100 af from an Unnamed Stream and Burton Creek for irrigation, frost protection and heat control of 100 acres from November 1 to May 15. The diversion structure on Burton Creek will not be constructed, and it will be dropped from the permit. Pursuant to License 5806, an additional 42 af of water per year can be diverted from the Unnamed Stream tributary to Burton Creek for recreation and domestic (stockwatering) purposes. No changes to the purposes of use authorized pursuant to License 5806 are proposed. The total combined diversion and storage under License 5806 and Permit 17941 is limited to 200 af. Under the Petition for Extension of Time and Petition for Change on Permit 17941, a total of 98 af would be collected from November 1 to May 15 from an Unnamed Stream at Upper and Lower Reservoirs. The maximum withdrawal would not exceed 92 af (maximum water use that occurred in 1995) from the two reservoirs under the permit.

Beneficial use of the water under the existing permit was to be completed by December 31, 1992. Consequently, changes in water use after 1992 must be evaluated for environmental impacts. The 1995 inspection documented that 35 acres of Sudan grass were being irrigated with 92 af of water. By 2002, the Petitioner had converted 68 acres of land to vineyard, including the 35 acres previously planted in Sudan grass. Water use under Permit 17941 and License 5806 reported in the Annual Report of the Upper Putah Creek Watershed Watermaster was 48.5 af in 2005, with 19.1 af used under Permit 17941 and 29.4 af used under License 5806<sup>11</sup>. No riparian diversions from Burton Creek have been reported and no diversion structure on Burton Creek will be constructed under Permit 17941.

#### Question A

The Central Valley Regional Water Quality Control Board issued a Waiver of Water Discharge Requirements and Water Quality Certification on September 30, 1998, which stated that the enlargement of the reservoir from 42 af to 100 af capacity and the installation of 100 acres of vineyard would not result in threats to water quality. The proposed project is developed and no additional waste discharge requirements will be triggered. Continued operation and

maintenance of the vineyard is not expected to significantly impact water quality standards. Potential impacts are considered less than significant.

#### Question B

The proposed project would not involve the use of groundwater. No impact would occur.

#### Question C

The earthmoving activities associated with the proposed project (construction of vineyard after the petitions were filed) likely resulted in negligible effects to the existing drainage pattern given the relatively flat topography of the vineyard areas, however no stream courses were altered, and no additional earthmoving activity would occur with the proposed project. Runoff flows from the project site would not substantially increase under the proposed project and no substantial additional sources of polluted runoff would occur. The proposed project would result in less than significant impacts to the existing drainage pattern.

#### Question D

As noted in Question A above, the proposed project would not substantially degrade water quality. However, to further ensure the protection of water quality during operation of the project, the following permit term, substantially as follows, shall be included in any water right licenses or orders issued for approval of the Petition for Change of Permit 17941 (Application 25765):

- *Permittee shall prevent any debris, soil, silt, cement that has not set, oil, or other such foreign substance to enter into or be placed where it may be washed by rainfall runoff into the waters of the State.*

The project as designed and operated is not expected to result in any violations of a water quality standard or in substantial water quality and/or erosion related impacts.

#### Question E

The project area does not lie within the FEMA flood zone, and the proposed project would not involve the development of housing or other structures that would impede or re-direct flood flows. No impacts are expected.

#### Question F

Localized flooding could occur if the Upper or Lower Reservoir dams failed, however, impacts are considered less than significant given the drainage pattern of the project site. The proposed project would not result in any inundation due to a tsunami because project area is not located within a potentially affected coastal area. There is a low potential that seiche could occur in the reservoirs due to seismic events. The proposed project reduced the proposed reservoir size from a single 100 af reservoir to two 49 af reservoirs. The potential for seiche is reduced for the modified project as compared to the original project. The proposed project is not located within an area associated with hazardous mudflow events. Potential impacts are considered less than significant.

#### Question G

Under the Petition for Extension of Time and Petition for Change on Permit 17941, a total of 98 af would be collected from November 1 to May 15 from an Unnamed Stream at Upper and Lower Reservoirs. The maximum withdrawal from the two reservoirs would be limited to 92 af, the quantity of water used in the year of maximum water use (1995).

In 1995, a Division inspection confirmed that 92 af of water was used to irrigate approximately 35 acres of Sudan grass. As noted previously, the 1995 inspection is the only available measurement of water use near the time of permit expiration (1992). The conversion of Sudan

grass to vineyard (including the additional vineyard acreage developed in the place of use since 1995) did not result in an increase in water use since the water requirements to irrigate the Sudan grass were greater than those to irrigate, frost protect and provide heat control for the vineyard. Diversion of 200 af per year is allowed under Permit 17941 and License 5806. The proposed project would result in a reduction of 60 af per year of diversion, as compared to the currently authorized combined diversion limit of 200 af (200 af minus 98 af per year diversion limit proposed under Permit 17941 and 42 af per year under License 5806). The proposed project would not reduce the water volume in the Unnamed Stream from historic levels under the permit, and the addition of the point of diversion/rediversion at Lower Reservoir and redistribution of storage would allow for the operation of the project within the quantity limits of the permit. The proposed project is also not expected to significantly change the pattern of seasonal flows in the stream.

The proposed project would not result in a substantial increase or threat from invasive, non-native plants and wildlife. No impact would occur.

#### Findings

The proposed project would not result in significant hydrology and water quality impacts with the inclusion of the above permit term.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>4. Biological Resources. Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the DFG or USFWS?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the DFG or USFWS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the federal Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A botanical survey<sup>12</sup>, special-status species survey<sup>13</sup>, and delineation of jurisdictional wetlands and waters of the U.S. were conducted for the Berglund property; copies of these reports are on file with the Division.



Peter J. Callizo of the Wantrup Wildlife Refuge conducted special-status plant surveys of the Berglund property on April 3, 28 and 29, 1997. The property was surveyed by walking the perimeters of the two reservoir sites and meandering transects of the property.

Wetlands Research Associates, Inc. (WRA) conducted a special-status species habitat assessment on October 22, 1997 to characterize the biological resources of the Berglund property, including habitat types and quality. The property was traversed on foot to determine the habitat potential for special-status species known to occur in the area. In addition, WRA conducted a delineation of jurisdictional wetlands and waters of the U.S. for the entire property. The U.S. Army Corps of Engineers (USACE) verified the WRA delineation report on March 10, 1998. The surveys were conducted prior to the development of the current 68-acre vineyard and are summarized below.

### **Habitat Types**

The project site is primarily non-native grassland and forested hillsides. Habitat types occurring within the property include riparian/swales, blue oak woodland, mixed evergreen forest and non-native annual grassland. Blue oak woodland habitat occurs to the west, grading into mixed evergreen forest, with continuing blue oak woodland to the east. The remainder of the property includes non-native annual grassland. The property has been extensively grazed and/or cultivated since the 1860's. All drainages on the property, including Burton Creek, have narrow, degraded, remnant borders of valley oak riparian<sup>14</sup>.

### **Plants**

Many of the plant species found within the project site are cultivated for forage crops and were most likely introduced deliberately. Dominant species on the project site observed during field surveys by WRA (1997) include perennial ryegrass (*Lolium perenne*), Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*), slender wild oat (*Avena barbara*), common horehound (*Marrubium vulgare*), soft chess (*Bromus hordeaceus*), yellow star thistle (*Centaurea solstitialis*), and other non-native grasses and forbs.

Several creeks cross the property and have associated riparian habitats dominated by valley oak (*Quercus lobata*), Oregon ash (*Fraxinus latifolia*), white alder (*Alnus rhombifolia*), willow (*Salix* sp.), California rose (*Rosa californica*), and wild California grape (*Vitis californica*)<sup>15</sup>. Elements of seasonal wetland plant communities were found throughout the property north of Pope Valley Road in low areas and along the perennial creeks that drain the property. The plant species in these areas included perennial ryegrass, Mediterranean barley, loosestrife (*Lythrum hyssopifolia*), curly-dock (*Rumex crispus*), and cattails (*Typha* sp.). South of Pope Valley Road, emergent freshwater marsh vegetation, such as cattails, grew along the perimeters of the two reservoirs.

### **Wildlife**

Wildlife observed on the project site by WRA during the wildlife habitat assessment on October 22, 1997 included: mosquitofish (*Gambusia affinis*), sunfish (*Lepomis* sp.), bass (*Micropterus* sp.), Pacific chorus frog (*Hyla regilla*), bullfrog (*Rana catesbeiana*), northwestern pond turtle (*Clemmys marmorata marmorata*), western fence lizard (*Sceloporus occidentalis*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), mule deer (*Odocoileus hemionus*), wood duck (*Aix sponsa*), American wigeon (*Anas americana*), ring-necked duck (*Aythya collaris*), red-shouldered hawk (*Buteo lineatus*), California quail (*Callipepla californica*), American coot (*Fulica americana*), morning dove (*Zenaida macroura*), acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttallii*), downy woodpecker (*Picoides pubescens*), northern flicker (*Colaptes auratus*), black phoebe (*Sayornis nigricans*), Steller's jay (*Cyanocitta stelleri*), western scrub jay (*Aphelocoma californica*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltirparus minimus*), white-breasted nuthatch (*Sitta carolinensis*), ruby-crowned kinglet

(*Regulus calendula*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), lark sparrow (*Chondestes grammacus*), savannah sparrow (*Passerculus sandwichensis*), song sparrow (*Melospiza melodia*), golden-crowned sparrow (*Zonotrichia atricapilla*), white-crowned sparrow (*Zonotrichia leucophrys*), dark-eyed junco (*Junco hyemalis*), red-winged blackbird (*Agelaius phoeniceus*), and lesser goldfinch (*Carduelis psaltria*).

### **Special-Status Species**

For the purposes of this Initial Study, "special-status" is defined to include those species that are:

- Listed as endangered or threatened under the federal Endangered Species Act (or formally proposed, or candidates, for listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as species of special concern by DFG;
- Plants or animals that meet the definitions of rare or endangered under CEQA;
- Plants listed as rare under the California Native Plant Protection Act; or
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2).

The name, regulatory status, habitat requirements, and period of identification for regionally occurring special-status species at the time of the surveys are identified in **Table 2** below.

**TABLE 2**  
**TARGET SPECIAL-STATUS SPECIES LIST<sup>16</sup>**

<b>Scientific Name Common name</b>	<b>Listing Status USFWS/ DFG/CNPS</b>	<b>Habitat Description</b>	<b>Habitat Suitability/ Presence</b>	<b>Ideal Period of Identification</b>
<b>PLANTS</b>				
<i>Astragalus claranus</i> Clara Hunt's Milk-vetch	FE/CT/1B	Sunny, grassy openings in Blue Oak Woodland. Serpentine or volcanics.	Nearest known population is Lake Hennessey, eight miles away.	Late March- Early April
<i>Ceanothus confusus</i> Rincon Ridge ceanothus	FSC/--/1B	Brushy, volcanic slopes.	Nearest known population is high on Mt. St. Helena. No suitable habitat occurs within the project site.	Anytime
<i>Lupinus serricatus</i> Cobb Mountain lupine	--/--/1B	Sunny, volcanic rock outcrops, above 1,200 feet.	Nearest known population is Ink Grade, two miles away. No suitable habitat occurs within the project site.	Anytime
<i>Navarretia leucocephala</i> ssp. <i>bakeri</i> Baker's Navarretia	--/--/1B	Wet vernal pools.	Non-viable population of 11 plants was observed on site in 1997. Nearest known viable population (of many plants) is on adjoining property. (Refer to page 20 for more information).	April
<i>Perideridia gairdneri</i> ssp. <i>gairdneri</i> Gairdner's yampah	FSC/--/4	Volcanic swales.	Nearest known population is Las Posadas, four miles away. No suitable habitat occurs within the project site.	April-December
<i>Ranunculus lobbii</i> Water-loving Buttercup	--/--/4	Wet vernal pools, ditches, once reported in a pond.	Nearest known population is Pope Valley, one mile away.	March-April

Scientific Name Common name	Listing Status USFWS/ DFG/CNPS	Habitat Description	Habitat Suitability/ Presence	Ideal Period of Identification
<b>ANIMALS</b>				
<b>Invertebrates</b>				
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT/--/--	Breeds and forages exclusively on blue elderberry shrubs ( <i>Sambucus mexicana</i> ) below 2,500 feet in elevation. Specifically on shrubs with stem diameter of one-inch or greater.	Division site visit in 1992 reported elderberry shrubs on site; one shrub contained possible VELB exit hole. Biological surveys conducted in 1997 made no finding of elderberry shrubs on the property.	All year
<i>Syncaris pacifica</i> California freshwater shrimp	FE/CE/--	Found in low gradient, perennial coastal streams. Streams are typically one to three feet deep, with exposed live roots along undercut banks, also with overhanging woody debris or stream vegetation.	This species has not been found higher than 380 feet above sea level. Burton Creek is at approximately 660 feet above sea level where it crosses the project site.	All year
<b>Fish</b>				
<i>Oncorhynchus mykiss irideus</i> Steelhead (Central Valley ESU)	FT/--/--	Found primarily in well-oxygenated, clean fresh water, with a temperature range of 10 degrees Celsius to 24 degrees Celsius.	Burton Creek is a small tributary to other streams that flow into Lake Berryessa; anadromous fish are not present.	Consult Agency
<b>Amphibians</b>				
<i>Rana aurora draytonii</i> California red-legged frog	FT/CSC/--	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent vegetation.	Potential suitable habitat on site includes the irrigation ponds and Burton Creek. (Refer to page 20 for more information).	May-November
<i>Rana boylei</i> Foothill yellow-legged frog	FSC/CSC/--	Found in shallow, flowing water, preferentially in small to moderate-sized streams with at least some cobble-sized substrate. Occur from near sea level to 6,000 feet in elevation.	Potential suitable habitat on site includes Burton Creek. (Refer to page 20 for more information).	All year
<b>Reptiles</b>				
<i>Emys (=Clemmys) marmorata marmorata</i> Northwestern pond turtle	FSC/CSC/--	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg-laying.	Present in Burton Creek.	All year



<b>Scientific Name Common name</b>	<b>Listing Status USFWS/ DFG/CNPS</b>	<b>Habitat Description</b>	<b>Habitat Suitability/ Presence</b>	<b>Ideal Period of Identification</b>
<b>Birds</b>				
<i>Accipiter striatus</i> Sharp-shinned hawk	--/CSC/--	Breeds in ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers, but not restricted to, riparian habitats. North facing slopes, with plucking perches are critical requirements.	Generally prefers to nest in coniferous habitats; the species is unlikely to be found on the project site.	All year
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	--/CT/--	Natural nesting habitat is in cottonwood-tree willow riparian forest, although it also nests in walnut and almond orchards in California.	No suitable habitat on the project site.	All year
<i>Dendroica petechia brewsteri</i> Yellow warbler	--/CSC/--	Common in riparian areas virtually throughout California, especially in the San Joaquin and Colorado River valleys.	Suitable habitat is on the project site. The species likely migrates through the area. Vegetation along Burton Creek could offer breeding habitat.	All year
<i>Falco mexicanus</i> Prairie falcon	--/CSC/--	Forages in open grasslands. Requires cliff ledges for cover and nesting.	No suitable nesting habitat on the project site.	All year
<i>Icteria virens</i> Yellow-breasted chat	--/CSC/--	Common summer resident in riparian woodland in coastal California and in foothills of the Sierra Nevada. Frequents dense, brushy thickets and tangles near water, and thick understory in riparian woodland.	Suitable habitat is on the project site. The species likely migrates through the area. Vegetation along Burton Creek could offer breeding habitat.	All year
<i>Progne subis</i> Purple martin	--/CSC/--	Nests primarily in old woodpecker cavities often located in tall, old isolated trees or snags in old-growth multi-layered open forests and woodlands.	A few small snags occur on the project site. North coastal populations typically nest in redwood/Douglas-fir snags; the species is unlikely to be found on the project site.	April-August
<b>Mammals</b>				
<i>Antrozous pallidus</i> Pallid bat	--/CSC/--	Prefers rocky outcrops, cliffs, crevices and manmade structures with access to open foraging habitats.	Bridges and hollow trees are found on or adjacent to the project site; the species could occur on the project site.	March-October

<b>Scientific Name Common name</b>	<b>Listing Status USFWS/ DFG/CNPS</b>	<b>Habitat Description</b>	<b>Habitat Suitability/ Presence</b>	<b>Ideal Period of Identification</b>
<i>Corynorhinus townsendii</i> (= <i>Plecotus townsendii</i> ) Townsend's big-eared bat	--/CSC/--	Found in all but subalpine and alpine habitats, but most abundant in mesic habitats. Requires caves, mines, tunnels, buildings, or other human-made structures for roosting.	No suitable roost habitat occurs on the project site.	All year
<i>Myotis evotis</i> Long-eared myotis bat	FSC/--/--	Found in brush, woodland, and forest habitats. Nursery colonies in buildings, crevices, spaces under bark, and snags; caves are used primarily as night roosts.	The species is not likely to occur on the project site.	April-September
<i>Myotis thysanodes</i> Fringed myotis bat	FSC/--/--	Found in a wide variety of habitats. Use caves, mines, buildings, and crevices for maternity colonies and roosts.	The species is not likely to occur on the project site.	April-September
<i>Myotis volans</i> Long-legged myotis bat	FSC/--/--	Primarily in woodland and forest habitats above 4,000 feet. Trees are important day roosts; uses caves and mines for night roosts.	The species is not likely to occur on the project site.	April-October
<i>Myotis yumanensis</i> Yuma myotis bat	FSC/--/--	Inhabits open forests and woodlands. Distribution is closely tied to bodies of water. Maternity colonies occur in caves, mines, buildings, or crevices.	Roost habitat includes trees and bridges; the species is likely to roost on or near the project site.	April-October

**STATUS CODES:**

**FEDERAL: (U.S. Fish and Wildlife Service)**

FE = Listed as Endangered by the Federal Government

FT = Listed as Threatened by the Federal Government

FSC = Federal Species of Special Concern

**STATE: (California Department of Fish and Game)**

CE = Listed as Endangered by the State of California

CT = Listed as Threatened by the State of California

CSC = California Species of Special Concern

**CNPS: (California Native Plant Society)**

List 1B = Plants rare, threatened, or endangered in California and elsewhere

List 4 = Plants of limited distribution – a watch list

A 2007 updated list of special-status species with potential to occur in the region was prepared and is on file with the Division. Twelve new CNPS listed plant species, two new federally listed plant species, one new federally listed fish species, and one new state listed bird species appear of the list. However, no newly listed species would be impacted by the project as no further development would occur.

## State and Federally Listed Species with the Potential to Occur on the Project Site

### Special-Status Plant Species

Water-loving buttercup (*Ranunculus lobbii*), bearded lady (*Pogogyne douglasii* ssp. *parviflorus*), gairdner's yampah (*Perideridia gairdneri*), Cobb Mt. Lupine (*Lupinus serricatus*), and Rincon Ridge ceanothus (*Ceanothus confuses*) were not observed on the Berglund property during rare plant surveys<sup>17</sup>. Eleven plants of Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*) were seen in a swale on the property on April 3, 1997; however, the species was gone when the site was revisited on April 28, 1997, possibly grazed by cattle in the pasture. Analyses concluded that the eleven plants were a non-viable population, but it was noted that a larger viable population was observed on an adjoining property. Consequently, no impact to the plant was expected when the 68-acre vineyard was planted. No changes in land use are proposed under the current project in the vicinity of where the plant was found. An area of blue oak woodland located to the west of the Lower Reservoir could provide potential habitat for Clara Hunt's milk vetch, although no species were found. This area is not part of the proposed project and no changes in land use are proposed for this area.

### Special-Status Amphibians

Potential habitat for both California red-legged frog (CRLF) and foothill yellow-legged frog (FYLF) occur on the project site along Burton Creek, and margins along the two reservoirs also provide potential habitat for CRLF. Results from the CNDDDB database identified that the nearest documented occurrence (#117) for FYLF is 3.29 miles away from the northern edge of the property boundary. At this site, numerous frogs were originally observed in 1956 and this record was last updated on July 25, 1995. Habitat details are omitted from the record and the site location is not precise.

The nearest documented occurrence (#738) for CRLF is 0.18 miles away from the southwestern edge of the property boundary. Original occurrence information was dated April 4, 1979, and the record was last updated on March 29, 2004. Two juveniles were observed in 1979, but on return visits to the site no CRLF were observed. In addition, giant salamander (*Dicamptodon ensatus*) larvae were observed upon each visit; this is a potential predator. It is noted in the record that the occurrence is possibly extirpated with a decreasing trend in population size.

Both potential habitat sites for these species, Burton Creek and the two reservoirs, currently support non-native predators, such as bullfrogs (*Rana catesbeiana*) and fish species. FYLF are infrequent or absent in habitats where introduced aquatic predators are present<sup>18</sup>. No CRLF or FYLF were observed during the site visits.

No changes to potential habitat for FYLF or CRLF would occur as a result of the proposed project.

### Special-Status Reptiles

One special-status species, the northwestern pond turtle (*Clemmys marmorata marmorata*), was observed on October 22, 1997 during a special-status species habitat assessment<sup>19</sup>. The northwestern pond turtle is a state and federal species of concern, observed in the deeper pools of Burton Creek near the western boundary of the property. This species most likely disperses downstream when water flow increases, and may eventually colonize the reservoirs. No changes to habitat for the northwestern pond turtle would occur as a result of the proposed project.

## Special-Status Bird Species

Several special-status bird species could use habitat within the project site for nesting, particularly in the riparian areas along Burton Creek and in the oak snags located on the project site. None of the bird species listed in **Table 2** were observed on the project site.

## Special-Status Bat Species

The project site is within the range of several species of special-status bats, but only three species potentially occur on the project site due to tree roost habitat preferences: the pallid bat (*Antrozous pallidus*), red bat (*Lasiurus blossevillei*), and yuma myotis (*Myotis yumanensis*). The roost habitat on the project site includes mostly oak snags and hollows within trees. No bat species were observed during surveys; however, evidence of a night roost was found under the bridge on Barnett Road.

## Waters of the U.S.

The term "waters of the U.S." is defined as:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands; or
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use or degradation of which could affect interstate or foreign commerce including any such waters.

"Wetlands" are defined as:

- Waters of the U.S. or isolated features that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

The jurisdictional wetlands on the project site occur mostly north of Pope Valley Road. Wetland indicators were found in depressional areas and in association with the perennial creeks that occur throughout the property. South of Pope Valley Road are two reservoirs that have five foot wide margins of emergent wetland vegetation, but these are the only wetlands that occur on this portion of the property.

In 1997-1998, the Petitioner proposed to place fill material in approximately 0.33 acre of seasonal wetlands and grade the project site so that vineyards could be installed. The remaining jurisdictional areas existing on this property are not being filled.

In a letter dated March 10, 1998, the USACE responded to a request for verification of the map of jurisdictional waters of the U.S. created by WRA (1998). The letter concurred that the project site contained 11.28 acres of waters of the U.S., which included 1.28 acres of seasonal wetlands and 10.20 acres of other waters. The proposed vineyard, which would impact 0.33 acres of seasonal wetland, was authorized under Nationwide Permit Number 26.

In a letter dated September 30, 1998, the Regional Water Quality Control Board, Central Valley Region waived Waste Discharge Requirements after finding that the filling of 0.33 acres of wetlands and grading for vineyard installation would not result in significant threats to water quality. As mitigation for development of the 0.33 acres of seasonal wetlands, the Petitioner



created jurisdictional wetland acreage at a ratio of 1:1.5, by creating 0.50 acres of seasonal wetlands and enhancing 0.005 acres of existing wetlands. The 0.50-acre mitigation site is located on the northern corner of the property, adjacent to Barnett Road.

#### Question A

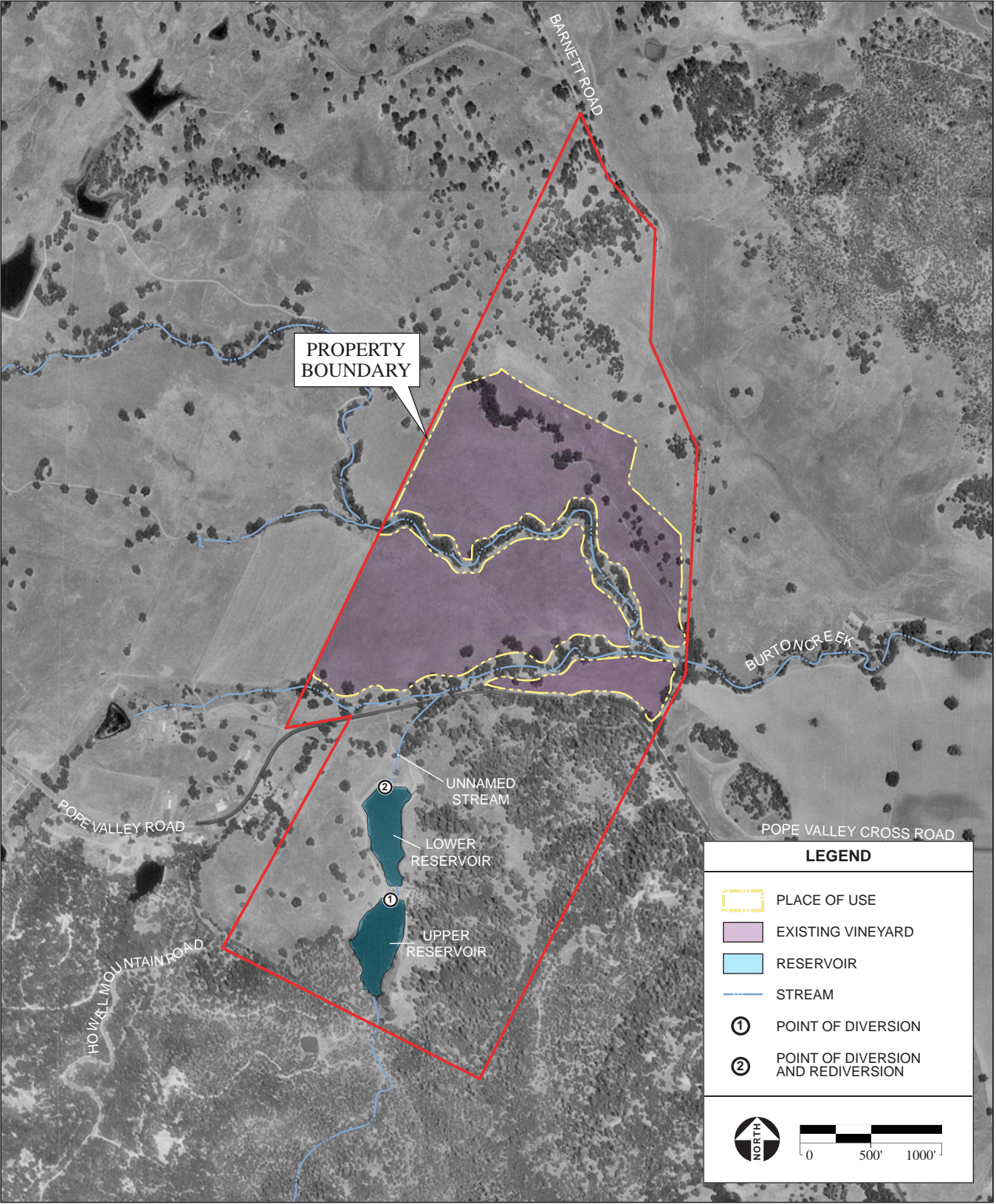
In a letter dated December 6, 1978, DFG provided permit terms to protect fish and wildlife resources in Burton Creek that were included in Permit 17941. However, as noted above, the diversion structure on Burton Creek has not been constructed and the terms will be removed from any license or order.

No special-status plant species were observed on the project site during the 1997 surveys. The northwestern pond turtle was the only special-status species observed on the project site. No changes to habitat for the northwestern pond turtle would occur as a result of the proposed project. Similarly, impacts to potential habitat for California red-legged frogs and foothill yellow-legged frogs in Burton Creek or the reservoirs would not occur as a result of the proposed project. No impacts to oak snags or other potential habitat for bats or birds would occur as a result of the proposed project. No trees were removed with vineyard construction (**Figure 4**) and no trees are proposed for removal.

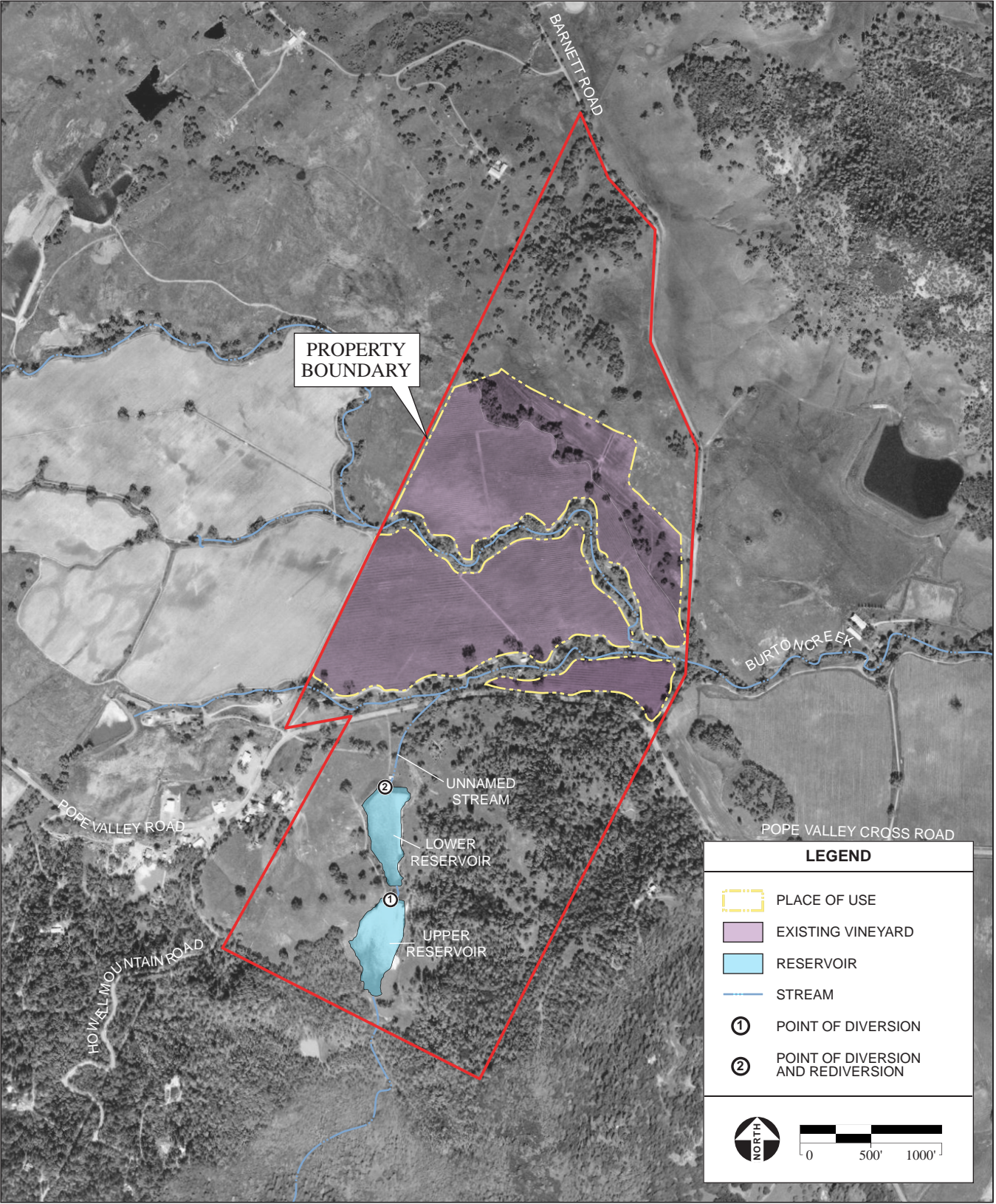
For the protection of threatened and endangered species and their habitat, the following permit terms, substantially as follows, shall be included in any water right license or orders issued for Permit 17941 (Application 25765):

- *This permit does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531-1544). If a "take" will result from any act authorized under this water right, the Permittee shall obtain authorization for an incidental take prior to construction or operation of the project. Permittee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the project authorized under this permit.*
- *The Permittee shall maintain a 50-foot-wide setback around the reservoirs as shown on Setback Map No. SB-01 dated March 13, 2008 on file with the Division of Water Rights. No new ground disturbing activities shall occur within the setback area, with the exception of occasional equipment access necessary for continued operation of the reservoir. Equipment access within the setback area shall be limited to only activities necessary for the ongoing management of the setback area and operation of the reservoir and shall incorporate best management practices to minimize disturbance to water, soils, and vegetation. Natural vegetation shall be preserved and protected within the setback area. Planting of native riparian vegetation within the setback area is allowed.*
- *The Permittee shall obtain approval of the United States Fish and Wildlife Service (USFWS), Sacramento Endangered Species Office, and the California Department of Fish and Game (DFG) prior to any future reservoir dredging operations. Permittee shall submit to the Chief of the Division of Water Rights evidence of agencies approval prior to any future reservoir dredging operations. The Permittee shall refrain from disturbing emergent (wetland) vegetation in the reservoir during dredging operation.*





1993 Aerial



2004 Aerial

SOURCE: USGS Aerial Photograph, 7/10/1993; AirPhoto USA Aerial Photograph, 4/1/2004; AES, 2007

**Figure 4**  
Project Features – 1993 & 2004 Aerial Photographs



#### Question B

The Petitioner has maintained approximately 75-foot riparian setbacks on the property and no stream crossings are proposed. No impacts to riparian habitat would occur as a result of the proposed project.

#### Question C

Jurisdictional wetlands on the subject property occur mostly north of Pope Valley Road. Wetlands and waters were found in and alongside perennial creeks, intermittent drainages, depressional areas, and two man-made reservoirs. According to the USACE delineation verification, the project site contains 11.28 acres of waters of the U.S.<sup>20</sup> This total includes 10.20 acres of other waters and 1.08 acres of seasonal wetlands. In 1997-1998, the Petitioner proposed to place fill material in approximately 0.33 acre of seasonal wetlands and grade the project site so that vineyards could be installed. The remaining jurisdictional areas existing on this property have not been filled, nor does the current project involve any filling or grading of the remaining jurisdictional areas.

As mitigation for impact to the seasonal wetlands, the Petitioner created jurisdictional wetland acreage at a ratio of 1:1.5, by enhancing 0.005 acres of existing wetlands and creating 0.50 acres of seasonal wetlands. The 0.50-acre mitigation site is located on the northern corner of the property, adjacent to Barnett Road.

For the protection of wetlands, the following permit term, substantially as follows, shall be included in any water right license or orders issued for Permit 17941 (Application 25765):

- *For the continued protection of created wetlands, no ground disturbing activities shall occur within the wetland area, including, but not limited to, grading, herbicide spraying, roads, fencing, and use or construction of storage areas. Planting, maintenance, and irrigation of native wetland vegetation within the setback area are allowed.*

#### Question D

The project site has been historically used for agricultural purposes and is located adjacent to agricultural land uses. The intermittent drainages occurring within the project site could provide movement corridors for fish or wildlife species. However, the proposed project would not impact these features in a manner that would substantially interfere with the movement of fish or wildlife. Therefore, potential impacts are considered less than significant.

#### Question E

No trees were removed with vineyard construction (**Figure 4**) and no trees are proposed for removal. The proposed project would not conflict with any local policies or ordinances protecting biological resources. No impact would occur.

#### Question F

No Habitat Conservation Plan or Natural Community Conservation Plan has been adopted for the project area. The proposed project would not result in conflicts with any approved local, regional, state, or federal habitat conservation plans. No impact would occur.

#### Findings

Based on the surveys conducted and the conditions evaluated at the project site, the proposed project is not expected to have a potentially significant adverse effect on any species identified as a candidate, sensitive, or special-status species. Inclusion of the above listed terms will provide assurance that future operation of the project will not adversely affect these resources.

**5. Agricultural Resources.** In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping & Monitoring Program of the California Resources Agency, to non-agricultural uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Agriculture and agricultural production are prevalent land uses in Napa County. Fertile valley and foothill areas have been identified by Napa County as areas where agriculture is and should continue to be the predominant land use. Development of urban type uses are considered by Napa County to be detrimental to the continuance of agriculture and the maintenance of open space, which are economic and aesthetic attributes and assets of the county<sup>21</sup>. The project site lies within an area zoned and designated as Agricultural Watershed (see Section 7: Land Use and Planning).

#### Questions A-C

The project site is designated as an Agricultural Resource area within the Napa County General Plan. Under the proposed project, the project site would continue to be used for agricultural purposes. No impacts would occur.

#### Findings

No impacts would occur to agricultural resources as a result of the proposed project.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>6. Noise.</b> Would the project result in:				
a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing in or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing in or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Major noise sources in the rural/agricultural areas of Napa County consist primarily of agricultural noise and occasional construction noise. Noise-sensitive areas identified within Napa County include schools, hospitals, urban residential areas, and wildlife management areas<sup>22</sup>.

#### Questions A-D

The proposed project is not expected to result in adverse noise impacts to any sensitive receptors, as no sensitive receptors are present in the vicinity of the project site. Pope Valley Elementary School is located approximately one and a half miles west of the project site. Noise generated on the project site would consist of routine agricultural activities and would be similar to that already existing in the vicinity. No additional construction activities would occur. Potential impacts are considered less than significant.

#### Questions E and F

The proposed project is located approximately three miles from Virgil O. Parrett Airport; however, the proposed project would not expose people to excessive noise level. Potential impacts are considered less than significant.

#### Findings

The proposed project would result in less than significant noise impacts.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>7. Land Use and Planning.</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Napa County General Plan

The project site lies within an area designated as Agricultural Resource by the 1998-2000 Napa County Land Use Plan. The Napa County General Plan describes the intent of the Agricultural Resource designation as follows:

To identify areas in the fertile valley and foothill areas of the County in which agriculture is and should continue to be the predominant land use, where uses incompatible with

agriculture should be precluded and where the development of urban type uses would be detrimental to the continuance of agriculture and the maintenance of open space which are economic and aesthetic attributes and assets of the County of Napa<sup>23</sup>.

General uses of the Agricultural Resource designation provided by the General Plan consist of agriculture, processing of agricultural products, and single family dwelling<sup>24</sup>.

The Conservation and Open Space Element of the Napa County General Plan provides the following planning goal and applicable policies for Agricultural Lands.

Planning Goal: Maintain and enhance the agricultural environment of Napa County.

Applicable Conservation Policies:

- (a) Limit growth to minimize urban development on prime soils and reduce conflict with the agricultural operations and economy.
- (b) Encourage reclaimed water use for vegetation enhancement, frost protection and irrigation to enhance agriculture and grazing.
- (d) Protect trees and shrubs for wildlife habitat and aesthetic purposes and encourage alternate uses, such as wildlife and recreation if feasible without undue environmental damage when grazing is phased out.
- (e) Require that existing significant vegetation be retained and incorporated into agricultural projects to reduce soil erosion and to retain wildlife habitat. When retention is found to be infeasible, replanting of native or adapted vegetation shall be required.
- (g) Minimize pesticide and herbicide use and encourage research and use on integrated pest control methods such as cultural practices, biological control, host resistance and other factors<sup>25</sup>.

#### **Napa County Zoning Ordinance**

The project site lies within the Agricultural Watershed (AW) District. The Napa County Zoning Ordinance describes the intent of the Agricultural Watershed designation as follows:

The AW district classification is intended to be applied in those areas of the county where the predominant use is agriculturally oriented, where watershed areas, reservoirs and floodplain tributaries are located, where development would adversely impact on all such uses, and where the protection of agriculture, watersheds and floodplain tributaries from fire, pollution and erosion is essential to the general health, safety and welfare<sup>26</sup>.

Agriculture is among the uses allowed within the Agricultural Watershed district that do not require a Use Permit.

#### **Question A**

Development of the proposed project would not result in physical barriers that would divide an established community. No impacts would occur.

#### **Question B**

The project is consistent with the existing Agricultural Resources land use designation. No permits or plans were required from Napa County for development of the existing vineyard, as slopes were less than five percent. No trees would be removed and stream setbacks of approximately 75 feet from Burton Creek have been maintained. No impacts would occur.



### Question C

No Habitat Conservation Plan or Natural Community Conservation Plan currently exists for the proposed project area. No impacts would occur.

### Findings

The proposed project would not result in significant impacts to land use and planning.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>8. Mineral Resources.</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Napa County General Plan identifies mercury deposits approximately three miles to the northwest of the project site and sand, gravel, and rock deposits approximately three miles to the northeast of the project site<sup>27</sup>. Mercury was mined extensively in the mid to late 1800's as a result of the demand for the mineral in refining gold and making explosives. Mercury mining proved to be unprofitable and most operations closed by the 1890's. The conservation policy for mineral deposits described in the general plan include encouraging compatible use of resource areas and ensuring the long-term production of Aggregate Resource Areas identified by the state pursuant to Public Resources Code Section 2762<sup>28</sup>.

### Questions A and B

No mineral resource deposits are located within the project site, as mapped by the Napa County General Plan. No impacts would occur.

### Findings

The proposed project would not result in significant impacts to mineral resources.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>9. Hazards and Hazardous Materials.</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site has historically been used for agricultural purposes. A database search was made for historical records that identify known sites where hazardous materials are generated, stored, or contamination has occurred<sup>29</sup>. The project site was not identified on any searched database as having current and/or previous hazardous material involvement.

The database also identified any known hazardous materials sites within a one-mile radius of the project area. One site within a one-mile radius of the project area was identified; Morris Welding Company is located at 5426 Chiles Pope Valley Road in Pope Valley, California, approximately a quarter mile west of the project site. The site is a historical listing on the Hazardous Substance Storage Container Database for two fuel tanks stored on site. No contamination has been reported at the site.

#### Questions A and B

Project operation and maintenance would require the use of certain potentially hazardous materials such as fuels and oil. These materials would generally be used with farm equipment and would be contained within vessels engineered for safe storage. Storage of significant quantities of these materials is not anticipated. Normal operating procedures and maintenance would reduce the risk of such hazards to a less than significant level.

#### Question C

The proposed project is not located within a quarter mile of any existing or proposed schools. Pope Valley Elementary School is located approximately one and a half miles from the project site. No impact would occur.

#### Question D

A search of government environmental records did not reveal any known hazardous materials sites within the project site. No impact would occur.

#### Questions E and F

The project site is located approximately three miles from Virgil O. Parrett Field in Angwin. There are no other private airstrips located within several miles of the project site. The project would not result in any safety hazards with respect to the nature and proximity of the project in relation to any private airstrip. No impact would occur.

#### Question G

The project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. No impact would occur.

#### Question H

The proposed project is located in a rural area that contains substantial fuels (e.g., grasses, shrubs, and other vegetation) that are susceptible to wildland fire. The risk of wildland fire for the proposed project is similar to that for other vineyards and can be minimized through the use of Best Management Practices (BMPs). Potential impacts are considered less than significant.

#### Findings

The proposed project would result in less than significant hazard and hazardous materials impacts.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>10. Population and Housing.</b> Would the project:				
a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is located in a rural area of Napa County. The Napa County General Plan does not identify acceptable areas for large-scale residential development in the vicinity of the project site.

#### Question A

The proposed project would not directly or indirectly induce substantial growth in the project area. No impacts would occur.

#### Questions B and C

The proposed project would not displace people or housing. No impacts would occur.

#### Findings

The proposed project would not result in significant impacts to population and housing.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>11. Transportation and Circulation.</b> Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Exceed, either individually or cumulatively, a level-of-service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Vehicular access to the project site is provided by Pope Valley Road, which bisects the property. The northeastern corner of the property follows Barnett Road, located off Pope Valley Road. Pope Valley Road is a two lane county road that connects the community of Pope Valley in the north with Angwin in the south. The Napa County General Plan estimated the average daily traffic in the year 2000 to be approximately 1,000 vehicles per day along Pope Valley Road in the vicinity of the project site<sup>30</sup>.

#### Questions A-G

No new traffic impacts are anticipated from the implementation of the proposed project. No substantial new impediments to emergency access or incompatible uses are anticipated. The proposed project is not expected to result in inadequate parking capacity, or conflict with adopted alternative transportation policies, plans, or programs. Potential impacts are considered less than significant.

#### Findings

The proposed project would not result in significant impacts to transportation and traffic.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>12. Public Services.</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Public services include fire and police protection, schools, parks, and other public facilities. The project area is located within unincorporated Napa County and the Napa County Sheriff's Department provides law enforcement services for this area. The Napa County Fire Department and the California Department of Forestry (CDF) provide fire protection services. Pope Valley Union Elementary provides K-8 grade public education in the project area and St. Helena Unified School District provides K-12 grade public education to the surrounding areas.

#### Questions A-E

The proposed project would result in the continued use of the project site for agricultural purposes and would not generate substantial additional demand for government facilities or services. No impacts would occur.

#### Findings

The proposed project would not result in significant impacts to public services.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>13. Utilities and Service Systems. Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is not served by public water or wastewater services. Residences in the project area rely on private wells for domestic water supply and private septic systems for wastewater treatment. The closest landfill is the Clover Flat Landfill located on Silverado Trail near Calistoga in Napa County, approximately ten miles west of the project site.

#### Questions A-G

No additional wastewater generation would result as a result of the proposed project. The proposed project would not involve connection to any water or wastewater treatment facilities, construction of stormwater drainage facilities, or generation of substantial solid waste. Potential impacts are considered less than significant.

## Findings

The proposed project would not result in significant impacts to utilities and service systems.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>14. Aesthetics.</b> Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project area contains scenic resources characteristic of Napa County in general, including mountainous landscapes, agricultural and pastoral settings, and riparian areas. The existing agricultural use of the project site is consistent with rural aesthetic quality of the project area.

## Questions A-D

The proposed project would result in the continued agricultural use of the project site. No additional height would be added to the dams, the reservoirs would not be modified and no additional vineyard would be developed. The proposed project is consistent with the rural aesthetic quality of the project area. The proposed project would not introduce a new source of substantial light or glare. Potential impacts are considered less than significant.

## Findings

The proposed project would not result in significant aesthetic impacts.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>15. Cultural Resources.</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Several cultural resources surveys have been conducted on the property. Between May 19 and 24, 1975, Thomas Jackson, from Archaeological Consulting and Research Services, Inc.<sup>31</sup> conducted a preliminary archaeological reconnaissance that resulted in the identification of one previously recorded and four new archaeological resources (CA-NAP-21, -387, -388, -389, and -390). These resources consist of the remains of three major habitation



sites marked by well-developed midden, a site with groundstone (manos), and a lithic scatter containing flaked stone tools and debitage.

An additional survey was conducted by William Soule and Dawn Neeley, archaeologists for the State Water Board, Division of Water Rights, on September 6, 1978. The objective of the 1978 study was to evaluate place of use areas that would be impacted as a result of development associated with Water Right Application 25765<sup>32</sup>. Three of the previously recorded sites were re-identified and were noted to contain dark grey-black midden soils with large amounts of charcoal, ash, fire fractured rocks, and obsidian and chert flaked stone artifacts. Two of the sites previously recorded were not relocated during the 1978 survey, possibly due to heavy vegetation.

On July 19, 1991, Thomas Origer conducted a field survey of the property and identified the five previously recorded sites. As part of that study he expanded the site boundaries of CA-NAP-21, -387, -389, and -390. In addition, it was determined that an area of "background scatter," located within the vicinity of CA-NAP-389 and -390, was discrete enough to be considered an individual site and was later added to the site inventory as CA-NAP-803. Origer concluded that, "...sites CA-NAP-21, CA-NAP-387, CA-NAP-389, and CA-NAP-390 could be directly impacted by proposed developments including reservoirs and pipelines. Site CA-NAP-388 is in a location away from any proposed reservoirs or pipelines; however, if the site area is converted into a vineyard then it could be impacted."<sup>33</sup> Origer recommended that each site be avoided by ground disturbing activity<sup>34</sup>.

William Soule, State Water Board archaeologist, revisited the property in January 1996 and conducted an inspection of the vineyard locations. Soule identified the locations of the previously recorded sites and acknowledged that the site locations had been subject to plowing and disking for many years. He recommended that deep ground disturbance (ripping, trenching, grading, or installation of buried pipeline) not be allowed as a condition of any permits and licenses to Application 25765 and Permit 17941. However, he did explicitly allow for continued disking of the site areas as part of routine maintenance of the vineyard and for weed control<sup>35</sup>.

In 2007, Origer & Associates returned to the property to update the status of the six archaeological sites and note any changes since the 1991 study. The subsequent letter report found that significant portions of CA-NAP-21, -387, -389, -390, and -803 had been developed as new vineyard<sup>36</sup>. The report notes that at CA-NAP-21 "the southern two-thirds of the site is planted as vineyard. The remainder is being disced for weed control but is otherwise unchanged." At site CA-NAP-387, the 2007 reconnaissance found that "the site is planted as vineyard except for the portion that lies within the creek setback."<sup>37</sup> No changes were observed in the condition of CA-NAP-388, whereas a vineyard had been developed on the southern half of site CA-NAP-389. Sites CA-NAP-390 and -803 were both planted as vineyard when they were visited in 2007.

Finally, in 2008, Origer & Associates conducted a supplementary study to further refine the site boundaries and significance of CA-NAP-21, -387, -389, -390, and -803<sup>38</sup>. In addition, the study sought to determine whether or not existing vines now planted within the sites' boundaries could be replanted without further impact to the resources. The study employed additional survey and subsurface archaeological testing, which provided a more exact definition of the boundaries of each site. A program of vine removal was completed and it was determined that pulling the vines either vertically or roughly horizontally using a tractor and chain produced minimal disturbance to the archaeological deposits. Earl and Denise Couey, representatives of the Mishewal-Wappo Tribe of Alexander Valley, participated in the 2008 fieldwork.

#### Questions A-D

Cultural surveys were conducted in 1975, 1978, 1991, 1996, 2007, and 2008. The State Water Board gave cultural clearance on September 15, 1997 and the original project was permitted. The following permit term is included with Permit 17941 for the protection of archaeological resources:

- *The archaeological sites CA-Nap-21, CA-Nap-387, CA-Nap-389 and CA-Nap-388 located in the reconnaissance report by Archaeological Consulting and Research Services, Inc. shall be excluded from the place of use. These sites shall not be otherwise impacted by any developments related to the proposed water storage, distribution and use. Such impacts would include dams, dikes, storage locations, pipelines, canals or ditches, and any other surface or subsurface disturbance related to the proposed water use.*

In a January 19, 1996 internal memo, the State Water Board recommended the following permit term be added to any permit or licenses issued pursuant to Application 25765:

- *The archaeological sites identified as CA-Nap-21, CA-Nap-387, CA-Nap-388 and CA-Nap-389 shall not be impacted by any subsurface disturbances (e.g., ripping, trenching, grading, or installation of buried pipelines). Discing of the archaeological deposits will continue to be allowed. Further development of these archaeological sites may be allowed following the completion of a cultural resources mitigation program, the expense of which would be entirely borne by the applicant. The mitigation program would have to be designed and completed by a professional archaeologist and subject to approval by the Deputy Director of the Division of Water Rights.*

The land upon which the archaeological sites at the Berglund property are located have been subject to historic disturbance on the surface and shallow depths (to a depth of approximately six inches) as a result of discing and plowing related to agriculture. While the place of use for the subject permit contains several archaeological resources, no new ground disturbance is planned, with the exception of ongoing routine maintenance of the vineyard in the location of the sites. Routine maintenance should be limited to the existing disc zone, and not include deep ground disturbance such as ripping, trenching, or grading. It is recommended that maintenance work within the archaeological site boundaries be accomplished with hand tools; in cases where the use of heavy equipment is necessary, such equipment should be fitted with rubber tracks or tires to limit the amount of disturbance to the resources.

Since the permit was not changed in 1996, the following term will replace the term proposed by William Soule in the 1996 internal memo. To provide protection for the archaeological sites, permit terms, written substantially as follows, shall be included in any water right license or order for Permit 17941 (Application 25765):

- *In order to protect the three archaeological sites identified as CA-NAP-21, CA-NAP-387, and CA-NAP-389/803 in the report titled Limited Archaeological Investigations at The Berglund Property, Pope Valley, California by Eileen Barrow, B.A. and Thomas M. Origer, M.A. dated October 24, 2008, revised December 19, 2008, Permittee shall be subject to the following restrictions for ongoing agricultural operations and any activities involving replanting of vines on the archaeological sites within the Place of Use pursuant to Permit 17941 (Application 25765):*

- A. *Vine removal shall be done as non-invasively as possible, by pulling the vines either vertically or roughly horizontally using a tractor and chain, as demonstrated in the video titled Vine Removal, accompanying the above referenced report. Vine*

- removal shall occur only while the soil is moist down to six inches, and vines shall be replanted in the same location as the vines which were removed;
- B. No trenching, or other mechanical disturbance, including ripping below the disc zone shall be allowed;
  - C. Cultivation (discing) is allowed for weed control and general vineyard maintenance; and
  - D. No artifacts or other materials shall be removed from the sites.

There is also the possibility that subsurface archaeological deposits or human remains could be present and accidental discovery could occur through vineyard operation and maintenance activities. As such, the following permit terms, substantially as follows, shall be included with Permit 17941:

- Should any buried archaeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archaeological indicators include: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic and metal objects; milled and split lumber; and structure and feature remains such as building foundations, privy pits, wells and dumps; and old trails. The Deputy Director of the Division of Water Rights. The Deputy Director of the Division of Water Rights shall be notified of the discovery, and a professional archaeologist shall be retained by the Permittee to evaluate the find and recommend appropriate mitigation measures. Proposed mitigation measures shall be submitted to the Deputy Director of the Division of Water Rights for approval. Project-related activities shall not resume within 100 feet of the find until all approved mitigation measures have been completed to the satisfaction of the Deputy Director of the Division of Water Rights.
- If human remains are encountered, then the Permittee shall comply with Section 15064.5 (e) (1) of the CEQA Guidelines and the Health and Safety Code Section 7050.5. All project-related ground disturbance within 100 feet of the find shall be halted until the county coroner has been notified. If the coroner determines that the remains are Native American, the coroner will notify the Native American Heritage Commission to identify the most-likely descendants of the deceased Native Americans. Project-related ground disturbance, in the vicinity of the find, shall not resume until the process detailed under Section 15064.5 (e) has been completed and evidence of completion has been submitted to the Deputy Director of the Division of Water Rights.

#### Findings

The proposed project could result in potentially significant impacts to cultural resources. However, with inclusion of the identified permit terms, potential impacts would be reduced to a less than significant level.

#### 16. Recreation. Would the project:

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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☐
☐
☐
☒

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

☐☐☐☒

Recreational areas in Napa County include forests, wild land areas, lakes, and creeks which offer such recreational opportunities as hiking, picnicking, hunting, boating, fishing, and swimming. Lake Berryessa and Lake Hennessey, and numerous State Parks located near Napa Valley provide abundant recreational facilities in the project area.

#### Questions A and B

The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The proposed project does not include recreation facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No impacts would occur.

#### Findings

The proposed project would not result in significant impacts to recreation.

## 17. Mandatory Findings of Significance.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Questions A-C

As discussed in the preceding sections, the proposed project has a potential to degrade the quality of the environment by adversely impacting air quality, water quality, biological resources and cultural resources. However, with implementation of the identified permit terms, potential impacts would be reduced to a less than significant level. The proposed project would not result in cumulatively considerable environmental impacts. No potentially significant adverse affects to humans have been identified.

### III. DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A NEGATIVE DECLARATION will be prepared. ☒
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

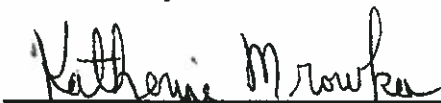
Prepared By:

  
David Zweig  
Analytical Environmental Services

5-29-09

Date

Reviewed By:

  
Katherine Mrowka  
Chief, Inland Streams Unit

6-25-09

Date

  
Steven Herrera, Manager  
Water Rights Permitting Section

8/3/09

Date

(Form updated 3/28/00)

Authority: Public Resources Code Sections 21083, 21084, 21084.1, and 21087.

Reference: Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.1 through 21083.3, 21083.6 through 21083.9, 21084.1, 21093, 21094, 21151; *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296 (1988); *Leonoff v. Monterey Board of Supervisors*, 222 Cal. App. 3d 1337 (1990).



#### IV. INFORMATION SOURCES

<sup>1</sup> Permit 17941, 1978; Request for License, 1996.

<sup>2</sup> *Soil Survey of Napa County, California*. Prepared by U.S. Department of Agriculture, Soil Conservation Service in cooperation with the University of California, Agricultural Experiment Station. Issued August 1978.

<sup>3</sup> Ibid.

<sup>4</sup> *Rare Plant Survey on the Berglund Ranch in Pope Valley, California*. Letter from Peter J. Callizo, Wantrup Wildlife Refuge to Michael N. Josselyn, Wetlands Research Associates. October 25, 1997.

<sup>5</sup> *Soil Survey of Napa County, California*. Prepared by U.S. Department of Agriculture, Soil Conservation Service in cooperation with the University of California, Agricultural Experiment Station. Issued August 1978.

<sup>6</sup> *Napa County General Plan: 9-4 and Figure 85*. June 7, 1983. Amended thru July 28, 1992.

<sup>7</sup> *Fault Rupture Hazard Zones in California. Special Publication 42*. California Division of Mines and Geology. Accessed on June 14, 2004 from [http://www.consrv.ca.gov/CGS/rghm/ap/Map\\_index/F4B.htm](http://www.consrv.ca.gov/CGS/rghm/ap/Map_index/F4B.htm).

<sup>8</sup> *Napa County General Plan: 9-4*. June 7, 1983. Amended thru July 28, 1992.

<sup>9</sup> *Napa County General Plan: Figure 91*. June 7, 1983. Amended thru July 28, 1992.

<sup>10</sup> *Napa County General Plan: Figure 100*. June 7, 1983. Amended thru July 28, 1992.

<sup>11</sup> *Tenth Annual Report of the Upper Putah Creek Watershed Watermaster*. March 2006.

<sup>12</sup> Letter summarizing results of rare plant searches on the Berglund Ranch. Peter J. Callizo. Wantrup Wildlife Refuge. October 25, 1997.

<sup>13</sup> *Special Status Species Habitat Assessment of Berglund Family Vineyard Property, Pope Valley, Napa County*. Wetlands Research Associates, Inc. November 1997.

<sup>14</sup> *Rare Plant Survey on the Berglund Ranch in Pope Valley, California*. Letter from Peter J. Callizo, Wantrup Wildlife Refuge to Michael N. Josselyn, Wetlands Research Associates. October 25, 1997.

<sup>15</sup> *Delineation of Jurisdictional Wetlands and Waters of the United States for Berglund Family Vineyards*. Prepared by Wetlands Research Associates, Inc. November 1997.

<sup>16</sup> *Special Status Species Habitat Assessment of Berglund Family Vineyard Property, Pope Valley, Napa County*. Wetlands Research Associates, Inc. November 1997.

*Rare Plant Survey on the Berglund Ranch in Pope Valley, California*. Letter from Peter J. Callizo, Wantrup Wildlife Refuge to Michael N. Josselyn, Wetlands Research Associates. October 25, 1997.

<sup>17</sup> *Rare Plant Survey on the Berglund Ranch in Pope Valley, California*. Letter from Peter J.

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Callizo, Wantrup Wildlife Refuge to Michael N. Josselyn, Wetlands Research Associates. October 25, 1997.

<sup>18</sup> *Special Status Species Habitat Assessment of Berglund Family Vineyard Property, Pope Valley, Napa County.* Wetlands Research Associates, Inc. November 1997.

<sup>19</sup> Ibid.

<sup>20</sup> Letter from Jim Monroe, P.E., Chief, Delta Office, U.S. Army Corps of Engineers to William Berglund, Berglund Family Vineyards. March 10, 1998.

<sup>21</sup> *Napa County General Plan.* June 7, 1983. Amended thru July 28, 1992.

<sup>22</sup> Ibid.

<sup>23</sup> *Napa County General Plan: 2-41, 42.* June 7, 1983. Amended thru July 28, 1992.

<sup>24</sup> *Napa County General Plan: 2-42.* June 7, 1983. Amended thru July 28, 1992.

<sup>25</sup> *Napa County General Plan: 8-16 & 17.* June 7, 1983. Amended thru July 28, 1992.

<sup>26</sup> *Napa County Zoning Ordinance. Title 18, Napa County Code.* Napa County Conservation, Development and Planning Department. Accessed on June 15, 2004 from <http://www.co.napa.ca.us/code2000/%5Fdata/title18/index.html>.

<sup>27</sup> *Napa County General Plan: Figure 82.* June 7, 1983. Amended thru July 28, 1992.

<sup>28</sup> *Napa County General Plan: 8-23.* June 7, 1983. Amended thru July 28, 1992.

<sup>29</sup> The Environmental Radius Map with GeoCheck. Berglund Vineyard. Environmental Data Resources, Inc. April 22, 2005.

<sup>30</sup> *Napa County General Plan: Figure 64.* June 7, 1983. Amended thru July 28, 1992.

<sup>31</sup> *Preliminary Archaeological Reconnaissance: William Berglund Parcel Map, Pope Valley, Napa County, California.* Prepared by Archaeological Consulting and Research Services, Inc. Surveys Conducted in 1975.

<sup>32</sup> *Archaeological Reconnaissance of Application 25765 of William R. Berglund, Burton Creek in Napa County.* Prepared by William E. Soule, Division of Water Rights staff archaeologist. November 28, 1978.

<sup>33</sup> *An Archaeological Study for the William R. Berglund Project, Pope Valley, Napa County, California.* Prepared by Thomas M. Origer. Report on file, Northwest Information Center, Sonoma State University, Rohnert Park, CA. July 21, 1991.

<sup>34</sup> Ibid.

<sup>35</sup> Application 025765 and Permit 017941 (William R. Berglund) Unnamed Stream Tributary to Burton Creek and Burton Creek Tributary to Maxwell Creek thence Pope Creek thence Putah Creek. Memo to Wayne C. Smith from William E. Soule. On file, Northwest Information Center, Sonoma State University, Rohnert Park, CA. January 19, 1996.

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<sup>36</sup> Letter to Diane Willson, Napa Valley Vineyard Engineering from Vicki Beard, Tom Origer & Associates. On file, Northwest Information Center, Sonoma State University, Rohnert Park, CA. June 4, 2007.

<sup>37</sup> Ibid.

<sup>38</sup> Limited Archaeological Investigations at the Berglund Property, Pope Valley, Napa County, California. On file, Northwest Information Center, Sonoma State University, Rohnert Park, CA. May 12, 2009.

<sup>39</sup> *An Archaeological Study for the William R. Berglund Project, Pope Valley, Napa County, California*. Prepared by Thomas M. Origer. Report on file, Northwest Information Center, Sonoma State University, Rohnert Park, CA. July 21, 1991.